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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/623,588

07/22/2003

Gary Schlatter

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EXAMINER

SMALLEY, JAMES N

ART UNIT

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3781

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,588	<b>Applicant(s)</b> SCHLATTER, GARY	
	<b>Examiner</b> JAMES N. SMALLEY	<b>Art Unit</b> 3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1- 3, 5-6, 8-11, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg US 2004/0250386 in view of Christler US 5,996,191.

Examiner notes Goldberg '386 was filed May 30, 2003, and thus qualifies as prior art under 35 U.S.C. 102(e) as the instant priority date is July 22, 2003.

Regarding claims 1 and 16, Goldberg '386, in the embodiment shown in figure 1A, teaches a container, taught in paragraph [0003] to be used for storing shampoo, soap, detergent, and other substances such as ointments, lotions and toothpaste, all of which are dispensed, thus teaching a dispensing container (10); an open end (14); a closed end (16); a closure cap (20), and an integrally-formed carabiner first and second arms having upwardly extending members (32, and an unlabeled section just above 20), and first (34) and second (38) arcuate members. In paragraph [0004], the reference teaches the purpose is to attach the container to other articles, such as luggage, belt loops, towel racks, wall hooks, utility belts, backpacks, and the like.

The reference fails to teach the arms overlapping along a substantial portion of their arcs.

Christler '191 teaches an overlap along resilient arms in a key ring, disclosing in column 3, lines 59-66, through column 4, lines 1-6, that it is known to adjust the relative length of the overlap. The abstract teaches, "The ends remain, however, freely displaceable from one another along the axial and circumferential directions and depend on substantially elastic restoring forces in the member to maintain the closed configuration." As such, the ends of the ring function exactly as those of the carabiner member on the cap of Goldberg '386, in that they part to allow attachment to another object, and then return to a "closed" position (in which the free ends are still slightly spaced). One of ordinary skill would

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thus recognize the equivalence of the function of the free arms in separating to allow attachment to an object, and then returning to a "closed" position under the natural internal bias caused by the elasticity of plastic, and, would also recognize a reasonable expectation of success when applying a benefit of one to the other. One of ordinary skill would thus find it obvious to modify one in view of the other for a benefit taught therein. Examiner also notes Christler '191, teaching in column 2, lines 60-62 that "The connection may be either for connecting the article to the ring, or the ring to the article," thus making it even more obvious to one of ordinary skill that the device has wide applicability. The reference details in columns 3 and 4 that the benefit of the structure is to allow either axial or radial opening, in order easily allow attachment, without also opening along the other axis, in order to stabilize the device. In column 3, lines 59-66, and continuing over to column 4, lines 1-6, the reference teaches it is known to modify the length of the overlap – either increasing or decreasing as specifically discussed in column 4 -- relative to the width, in order to configure the opening relative to the internal material bias. In fact, line 1 of column 4 specifically states it would be obvious to one of ordinary skill. Finally, the length of the overlap, when compared to the overlap shown in figure 1A of Goldberg would make it much harder for radial detachment of the arms relative to each other (because the upper arm simply is in the way of the lower arm), thus making the connection less likely to come apart under radial stresses.

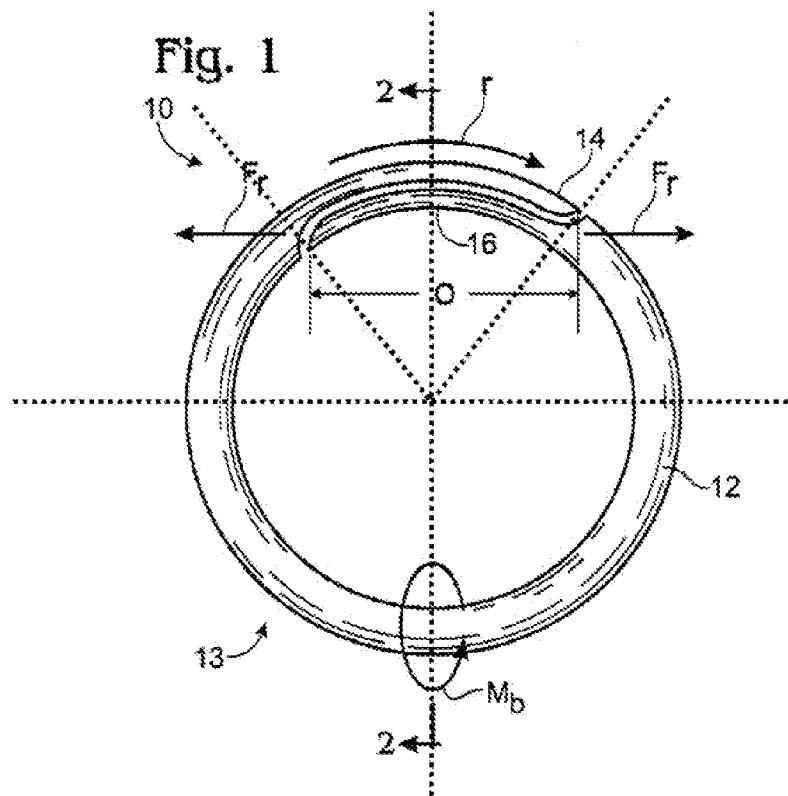
It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the length of the overlap of the arms of Goldberg '386, making it such that the arms overlap along a substantial portion of their arc lengths, as taught by Christler '191, motivated by the benefit of providing stability such that the arms will only separate in either a radial direction or an axial direction but not both, and, by the benefit of preventing radial detachment. **Examiner emphasizes that the obviousness is not to place the key ring of Christler '191 onto the cover of Goldberg '386, but instead to apply a teaching from Christler '191 that it is known to modify the length of overlap of resilient arms in order to overcome material bias to obtain a desired opening force between the elements.**

Regarding claim 8, the combined references teach all limitations substantially as claimed, but fail to teach the overlap along the respective arcs of the first and second arms being at least 60 degrees.

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Examiner notes, however, in the diagram provided below taken from Christler '191, figure 1, superposed lines have been drawn to estimate the center of the ring, and then show the arc length of the overlap relative to the center. It is clear that the arc overlap is slightly less than 90 degrees, and more specifically is likely greater than 60 degrees.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the length of the overlap of the first and second arms through at least a 60 degree arc, or to any other suitable arc length, motivated by the benefit of providing increased resistance to radial forcing which would open the arms and break the connection between the container carabiner, and the associated article with which it is attached. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). It would have been obvious to one having ordinary skill in the art at the time the invention was made to \*, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).



Regarding claims 2, 9, and 17, it is clear that in both references, the second arm (38 in Goldberg '386; 16 in Christler '191) has a smaller radius of curvature, as it is located radially inwardly of the first arm.

Regarding claims 3, 5, 10, 13, and 18, the first arm (34 in Goldberg ‘386; 14 in Christler ‘191), by being disposed radially outwardly from the second arm, inherently comprises a longer arc length.

Regarding claim 6, 11, the combination of Goldberg '386 in view of Christler '191 as applied above, teaches all limitations substantially as claimed, but it is not clear how far apart the arms are located from each other in either reference. However, each clearly teaches separation between the two respective arms. It would have been obvious to size the container such that the resultant gap was equal to 2 mm or less, or any other suitable size, motivated by the benefit of providing a container of a desired volume. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

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Regarding claim 15, the ends of the first and second arms (34, 38) are shown to be tapered in Figure 1A of Goldberg '386.

3. Claims 4, 7, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg US 2004/0250386 in view of Christler US 5,996,191 as applied to claims 1, 3, 8 and 9 above, and further in view of Maillocheau US 3,748,703.

Goldberg '386, as applied above, teaches all limitations substantially as claimed but fails to teach the first upwardly extending connecting member being longer than the second upwardly extending connecting member. However, Examiner notes this is due to the fact that the first arm arcuate portion (34) is located radially outwardly of the second, and the second arm's arcuate portion (38) is the one which is apparently pressed inwardly. Thus, the second arm's upwardly extending member (30) is longer.

Maillocheau '703 teaches a plastic clasp/clip hook, wherein what would comprise the first arm arcuate portion (4) is radially outwardly of the second arm (5) and thus the second arm is the portion which is pressed in, in order to open the gate. As such, the first arm's upwardly extending member (3) is longer than the second arm's upwardly extending portion (6).

Examiner notes there is a clear advantage to the structure shown by Maillocheau '703, due to leverage: By having the shorter arm be the arm which pivots inwardly, a greater force is required to open the gate, compared to an equal torque applied at the arcuate end of the longer arm, in the configuration shown in Goldberg '386. This is known from the equation for a "moment arm," given by the equation  $\tau = r \times F$ . Because the inwardly pivoting second arm (30, 38) of Goldberg '386 is much longer than the first arm (34), a lesser force is required to open it. While this might be an advantage in one sense, it would be desirable in another sense to increase the required opening force, in order to prevent inadvertent opening of the gate. This can be done by reversing the configuration of the gates, such that the shorter arm is the arm which is inwardly pivoted, and thus the required opening force is greater.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to reverse the orientation of the first and second arms of Goldberg '386, such that the first arm would thus become (30, 38), would be disposed radially outwardly of the second arm (34), the second

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arm would thus pivot inwardly, and the first arm's upwardly extending portion (30) would thus be longer than that of the second arm (unlabeled; located immediately above 20), motivated by the benefit of increasing the force required to open the gate, and thus preventing undesired opening of the gate. It has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

**Examiner emphasizes that this modification is not to replace the arms of Goldberg '386 with those of Maillocheau '703, but instead is to modify Goldberg '386 with a teaching of a concept shown in Maillocheau '703.**

#### ***Response to Arguments***

4. Applicant's arguments filed April 11, 2008 have been fully considered but they are not persuasive.

**a) Applicant argues that "...it logically does not flow to make something that includes a hook into something hookless" (Remarks, page 12).**

Examiner asserts the obviousness of the rejection is not to place the key ring of Christler '191 onto the cover of Goldberg '386, but instead to apply a teaching from Christler '191 that it is known to modify the length of overlap of resilient arms in order to overcome material bias to obtain a desired opening force between the elements.

**b) Applicant argues the teachings of Christler provide no benefit to Roth, and that Christler would make Roth inoperative.**

Examiner notes that these arguments are made, to the degree that they apply to Goldberg '386 instead of Roth. Examiner also asserts that the inventions of Goldberg and Christler are each drawn to the separation of resilient arms in order to secure two elements together. Thus, one of ordinary skill in the art would find it obvious to apply the benefit of one, to the other.

Regarding inoperability, Examiner again asserts that the obviousness rejection is not based on placing the ring of Christler onto the cap of Goldberg '386, but instead is based on applying a teaching from Christler that it is obvious to one of ordinary skill in the art to modify the length of the overlap of adjacent resilient spring arm ends, relative to the arm thicknesses, in order to overcome the internal



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material stresses so as to provide a desired opening force which will allow a user to part the arms and easily attach the ring to an element, such as a key.

**c) Applicant argues one would not look to Christler because it is not concerned with lids for bottles.**

Examiner asserts that one of ordinary skill would look to Christler because it teaches a benefit of configuring the length of the overlap of resilient spring arms in order to provide a desired opening ease or force, to enable a user to attach an object to the ring, or the ring to an object more easily than a standard ring, while preventing the ring from collapsing.

**d) Applicant argues the structure of Christler cannot be determined to be the same as that of Roth.**

Examiner asserts that since the inventions of Goldberg and Christler are each explicitly drawn to resilient plastic arms which overlap, and, which are designed to be parted in order to allow connection to another object, that they are similar inventions.

**e) Applicant argues Christler cannot deflect in the axial direction.**

It is stated in the Abstract that the arms can separate in the axial direction.

**f) Applicant argues Christler fails to teach a 60 degree overlap.**

Examiner notes the claim only requires "at least 60 degrees". See figure provided above showing what appears to be an overlap of greater than 60 degrees.

**g) Applicant argues the logic of the combination fails to have support in view of KSR (1) applying a known technique to a known device ready for improvement to yield predictable results; (2) known work in one field of endeavor may prompt variation of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; or (3) some teaching, suggestion or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.**

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Examiner notes: (1) The known technique is the teaching in Christler that one of ordinary skill in the art can configure the length of the overlap of adjacent resilient spring arms, in order to overcome or enhance material bias within the ring, as discussed in column 3, lines 55-66; (2) As both inventions are drawn to integral plastic loops which have overlapping arms which are designed to part in order to allow connection to an object, and then return under material bias to the "closed" position, one of ordinary skill would find both of these to be of the same field; (3) The teaching of Christler in the bottom of column 3, and the top of column 4 that such an overlap can be modified to obtain a desired result would lead one to apply it to Goldberg '386 in order to configure the opening resistance/strength/ease to a desired value. Why would one of ordinary skill not want to have complete control over the aesthetic feel of how easy the arms are to be parted, or, how strong the connection between the two attached elements would be? Since Goldberg '386 is silent as to how to adjust the opening force/resistance of the resilient arms, one of ordinary skill would be motivated to look elsewhere. Just because the carabiner of Goldberg '386 is attached to a container, this would not lead one of ordinary skill to only look at other containers; one of ordinary skill would recognize the container does not interfere with the function of the carabiner's intended purpose, but instead would look to other types of connectors.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES N. SMALLEY whose telephone number is (571)272-4547. The examiner can normally be reached on Monday - Friday 10 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James N Smalley/  
Examiner, Art Unit 3781

/Anthony D Stashick/  
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